Question 1a, H69

- A p-wave was created when we pulled the slinky back and pushed it forward.
- An s-wave was created when we moved the spring side to side (left/right).

Question 1b, H69

- The purpose of using the floor tiles was to ensure we all moved the spring the same distance. This helps us keep the lab fair and controlled.

Question 1c, H69

- The p-wave traveled the spring in an average of 1.67s. The s-wave traveled the spring in an average of 1.68s. The p-wave moved faster.

Question 1d, H69

- Several things can explain the differences between groups' wave times:
  - Actual length of the spring
  - Actual distance moved
  - Force put into wave
  - How students worked the timer

Question 1e, H69

- The team data is the most valid. Smaller data sets are less likely to be reliable (consistent) or valid (accurate). This is because we did not conduct enough trials to determine if our results are consistent to determine if we have outliers. This leads us to conclude that team data will contain enough data that we can determine reliability and any outliers will not have a severe impact on our outcomes.

Question 2a, H69

- Weak connections, loose soil, the direction of the wave movement, buildings not flexible enough to sway with waves, size and shape of the building, open or unsupported first story in the building, and foundations are some reasons of why buildings collapse in an earthquake.

Question 2b, H69

- Firm foundations, tying parts of building together, adding reinforcing beams, having building of uniform design (regular shape), making buildings flex or sway, bracing doorframes, and adding materials to walls (reinforcing strips, steel, and bamboo) are all ways to make a building more earthquake-resistant.